

Illinois Environmental Protection Agency
Bureau of Air, Permit Section
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Project Summary
The Federally Enforceable State Operating Permit (FESOP)
John H. Stroger, Jr. Hospital of Cook County
Chicago, Cook County

Site Identification No.: 031600AWX
Application No.: 96080076

Schedule

Public Comment Period Begins: April 4, 2014
Public Comment Period Closes: May 4, 2014

Illinois EPA Contacts

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PROJECT SUMMARY

I. INTRODUCTION

John H. Stroger, Jr. Hospital of Cook County was operating under Clean Air Act Permit Program (CAAPP) permit as a major source of nitrogen oxides (NO_x) emission produced by the heat and power generating equipment. As a result of replacement of the boilers with low NO_x burners the facility became eligible for a Federally Enforceable State Operating Permit (FESOP). This hospital requires an air pollution control operating permit because it is a source of emissions. The Illinois EPA has prepared a draft of the renewed permit that it would propose to issue for the plant. However, before issuing the permit, the Illinois EPA is holding a public comment period to receive comments on this proposed action and the terms and conditions of the draft permit that it would propose to issue.

II. SOURCE DESCRIPTION

John H. Stroger, Jr. Hospital operates power and heat generating equipment comprised of nine boilers and five diesel-fired emergency engine/generators. Primary fuel used in the boilers is natural gas and fuel oil #2 is used as back-up fuel. The hospital also operates three ethylene oxide sterilizers with two aeration chambers controlled by two catalytic oxidizers.

III. GENERAL DISCUSSION

Federally Enforceable State Operating Permits (FESOPs) are federally enforceable, that is, the terms and conditions of the permits can be enforced by USEPA under federal law, as well as by Illinois government and the public under state law. These permits can establish federally enforceable limitations on the operation and emissions of a source that restrict the potential emissions of the source.

The source needs to operate this plant under a FESOP because the actual emissions of the plant are below the levels at which the plant would be considered a major source under Title V of the Clean Air Act. However, in the absence of federally enforceable limitations, the plant's potential emissions would be such that the plant would be considered a major source. The permit acts to restrict the plant potential emissions so that it need not be considered a major source. As a result, the source does not need to obtain a Clean Air Act Permit Program (CAAPP) permit for the plant, as would otherwise be required.

The FESOP limits the operation and annual emissions of the plant to below the major-source-thresholds of 100 tons for Nitrogen Oxides (NO_x), Sulfur Dioxide (SO₂), and 100,000 tons of Carbon Dioxide equivalent (CO₂e) per year for Green House Gases (GHG)).

IV. APPLICABLE EMISSION STANDARDS

All emission units in Illinois must comply with state emission standards adopted by the Illinois Pollution Control Board. These emission standards represent the basic requirements for sources in Illinois. The board has specific standards for emissions of particulate matter (PM) from process and fugitive sources, e.g., 35 IAC, Part 212, Subpart B – Visible Emissions, Subpart K – Fugitive Particulate Matter and Subpart L – PM Emissions from Process Emission Units. The Sulfur Dioxide emission from fuel combustion and process emission sources is regulated by 35 IAC, Part 214. The emissions of Carbon Monoxide and Nitrogen Oxides emissions from fuel combustion sources are subject to the requirements of Part 216 and Part 217, respectively.

The reciprocating internal combustion engines are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63 Subpart ZZZZ.

The ethylene oxide sterilizers are subject to NESHAP for Hospital Ethylene Oxide Sterilizers, 40 CFR 63, Subpart WWWW.

The application shows that the plant is in compliance with applicable state and federal emission standards.

V. CONTENTS OF THE PERMIT

The permit that the Illinois EPA is proposing to issue would identify the specific emission standards that apply to the emission units at the plant. The process emission units shall not exhibit emission of particulate matter exceeding 30% and fugitive emissions shall not cross property line as specified in Part 212, Subpart B and Subpart K. The plant operations are subject to 35 IAC 214 which restricts emission of Sulfur Dioxide from fuel oil combustion sources. Pursuant to requirements of NESHAP Subpart ZZZZ the source has to use fuel oil with ultralow sulfur content. The conditions of this permit are intended to ensure that the source complies with applicable emission standards. The NESHAP WWWW requires following certain operational procedures for ethylene oxide sterilizers.

The permit would also contain limitations and requirements to assure that this facility is operated as a non-major source. The permit would limit the operation and annual emissions of the facility to below the major-source-thresholds of 100 tons for Carbon Monoxide and Nitrogen Oxides.

The permit conditions would also require appropriate compliance procedures, including inspection practices as well as recordkeeping and reporting requirements. The source must carry out these procedures on an on-going basis to demonstrate that the plant is being operated within the limitations set by the permit and the plant's emissions are being properly controlled.

VI. REQUEST FOR COMMENTS

It is the Illinois EPA's preliminary determination that the source has met the requirements for renewal of its permit. The Illinois EPA is therefore proposing to issue the permit.

Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on the draft permit. If substantial public interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 IAC Part 166.